Canada - British Columbia Forest Resources Development Agreement

1985 - 1990

Canada

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Canada — British Columbia

Forest Resource

Development Agreement

(1985-1990)

Province of British Columbia

Ministry of Forests

Government of Canada

Canadian Forestry Service

Gouvernement du Canada

Service canadien des forêts

This booklet is a joint publication
of the Canadian Forestry Service and the
British Columbia Ministry of Forests.

For additional copies and/or further
information about the Canada-British
Columbia Forest Resource Development
Agreement, contact

Canadian Forestry Service
506 West Burnside Road
Victoria, B.C. V8Z 1M5
(604) 388-0600

or

B.C. Ministry of Forests
1450 Government St.
Victoria, B.C. V8W 3E7
(604) 387-5788

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CANADA – BRITISH COLUMBIA

FOREST RESOURCE DEVELOPMENT AGREEMENT

(1985-1990)

THIS AGREEMENT made this 25th day of May, 1985

BETWEEN: THE GOVERNMENT OF CANADA (hereinafter referred to as "Canada") represented by the Minister of Agriculture

OF THE FIRST PART,

AND: THE GOVERNMENT OF THE PROVINCE OF BRITISH COLUMBIA (hereinafter referred to as the "Province"), represented by the Minister of Forests and the Minister of Industry and Small Business Development

OF THE SECOND PART.

WHEREAS the Canada Forestry Development and Research Act 1966-67, C25, S26 enables the responsible federal Minister to enter into agreements with the government of any province or with any person for forest protection and management or forest utilization, for the conduct of research related thereto, or for forestry publicity or education; and

WHEREAS the Province is required under Section 9 of the Ministry of Forests Act RSBC 1979, to present to the Legislative Assembly a five-year Resource Program, including a schedule for implementing a program for restocking forest land and improving the productivity of the forest land in the province; and

WHEREAS Canada and the Province, have executed an Economic and Regional Development Agreement on November 23, 1984 for the purpose of establishing a means for achieving greater federal-provincial cooperation and coordination in realizing the economic and regional development potential of the Province of British Columbia; and

WHEREAS Canada and the Province have identified joint and complementary initiatives for the management of the forest resources of British Columbia for ensuring the long-term economic viability and strengthening the job creation potential of the forest sector of the British Columbia economy; and

WHEREAS the Governor in Council by Order-in-Council P.C. on the day of 1985, has authorized the Minister of Agriculture to execute this Agreement on behalf of Canada; and

WHEREAS the Minister of Agriculture has delegated his authority on the 22nd day of May, 1985 to the Minister of State (Forestry) to execute this Agreement on his behalf; and

WHEREAS the Lieutenant Government in Council, by Order-in-Council No. on the day of , has authorized the Minister of Forests and the Minister of Industry and Small Business Development to execute this Agreement on behalf of the Province.

NOW THEREFORE the parties hereto mutually agree as follows:

SECTION 1: DEFINITIONS

1. In this Agreement:

   (a) "federal Minister" means the Minister of Agriculture, and includes anyone authorized by the Minister to act on his behalf;

   (b) "provincial Minister" means the Minister of Forests and includes anyone authorized by the Minister to act on his behalf;

   (c) "Ministers" means the federal Minister and the provincial Minister;

   (d) "program" means a group of related sub-programs;

   (e) "sub-program" means a group of related activities for which funding is federal, provincial or cost-shared;

   (f) "activity" means a group of related projects;

(g) "project" means a self-contained subdivision of an activity;

(h) "fiscal year" means the period commencing on April 1 of any year and terminating on March 31 of the following year;

(i) "eligible costs" means those costs incurred and paid by Canada or the Province and defined in subsections 5.4, 5.5, and 5.6 of this Agreement and may include costs incurred between April 1, 1985 and the date of signing of this Agreement; and

(j) "Management Committee" means the Committee established pursuant to subsection 3.1.

SECTION 2: OBJECTIVE

2.1 The objective of this Agreement is to manage the forest resource of the Province, in order to sustain and increase the forest resource and strengthen the employment potential of the forest industry in accordance with the strategy outlined in Schedule A attached hereto.

2.2 More specifically to:

(a) manage part of the backlog of non-satisfactorily restocked lands in the Province;

(b) intensively manage selected forest stands;

(c) support forestry research by government and non-government organizations; and

(d) assist the forest industry through studies related to utilization, marketing and product development, technology transfer and training.

SECTION 3: MANAGEMENT

3.1 The Ministers shall promptly establish a Management Committee consisting of four members to be appointed as provided in Section 3.2

3.2 The federal Minister shall appoint two representatives and the provincial Minister shall appoint two representatives. Furthermore, pursuant to subsection 7.2.3 of the Canada-British Columbia Economic and Regional Development Agreement, the officials comprising the Economic Coordinating Committee shall be non-voting members of the Management Committee.

3.3 A representative of the Canadian Forestry Service and a representative of the British Columbia Ministry of Forests shall act as co-Chairpersons of the Management Committee.

3.4 The signatures of the co-Chairpersons of the Management Committee shall be sufficient verification for the purpose of this Agreement of any recommendation, decision made or approval given by the Management Committee.

3.5 Decisions of the Management Committee shall be acted upon only if members are unanimous. If the Management Committee is unable to reach a unanimous decision, the relevant matter shall be referred to the Ministers whose decision shall be final.

3.6 The Management Committee shall be responsible to the Ministers for the implementation of this Agreement and in particular for the following:

(a) reporting annually to the Ministers no later than September 30 on the progress of this Agreement and recommending:

- a work plan and budget for the following fiscal year (on or before May 1, 1985, for the first year);
- estimates of costs of implementation of this Agreement;
- any amendments to this Agreement;

(b) the establishment of working groups for the review and the recommendation of sub-programs, activities or projects under this Agreement, and the coordination of and

liaison with committees, interested departments, ministries and agencies;

(c) the provision and approval of operational guide-lines and procedures and exceptions to these procedures;

(d) the approval and authorization of costs of eligible cost-shared sub-programs and activities under this Agreement;

(e) adjusting annual budgets and costs between cost-shared programs, sub-programs and activities;

(f) the establishment of criteria for evaluating, monitoring, assessing and inspecting programs, sub-programs, activities and projects under this Agreement;

(g) the approval of exceptions to normal labor recruitment practices;

(h) the determination of the Canadian content of work under this Agreement;

(i) the direction and implementation of a program of public information; and

(j) the performance of any other functions that may be assigned to it by the parties hereto.

SECTION 4: ADMINISTRATION

4.1 This Agreement shall commence and take effect on the date on which it is signed by the Ministers and shall terminate on March 31, 1990 or such earlier date as may be agreed to in writing by the Ministers. Claims will be paid up to March 31, 1992 provided the expenditures to which the claim(s) relates were approved before March 31, 1990 and work was completed between April 1, 1985 and March 31, 1992.

4.2 The provincial Minister shall be responsible for the development of proposals for implementing cost-shared and provincially-funded programs, sub-programs, activities and projects under this Agreement, and the provision of the staff and

administrative mechanisms for the implementation and audit of those programs, sub-programs, activities and projects under this Agreement.

4.3 The federal Minister shall be responsible for the development of proposals for implementing federally-funded programs, sub-programs, activities and projects under this Agreement and for the provision of staff and administrative mechanisms for the implementation and audit of those programs, sub-programs, activities and projects under this Agreement.

4.4 Any proposed project or activity under this Agreement, which involves provincial Crown lands shall be developed in concert with the provincial Minister and in accordance with Subsection 4.10.

4.5 The federal Minister shall be responsible for liaison and coordination amongst the departments and agencies of Canada interested in projects to be implemented under this Agreement.

4.6 The provincial Minister shall be responsible for the liaison and coordination amongst the ministries and agencies of the Province whose work affects the implementation of this Agreement.

4.7 All cost-shared sub-programs under this Agreement shall be undertaken in accordance with procedures to be approved by the Management Committee.

4.8 All cost-shared expenditures under this Agreement shall be authorized by the Management Committee.

4.9 The parties agree to provide the Management Committee with all information necessary for the performance of its responsibilities.

4.10 In submitting a proposal for implementation under this Agreement, the parties shall provide documentation containing sufficient information for the assessment of the proposal, including, where applicable, the purpose, objectives, cost, anticipated completion date, cash flow, expected benefits, design and construction standards and any other information which the Management Committee may require.

4.11 All contracts under approved, cost-shared programs, sub-programs and activities shall be awarded pursuant to tenders

invited by public advertisement and awarded to the qualified and responsible tenderer submitting the lowest evaluated bid, unless otherwise recommended by a designated senior official of the provincial Minister, in accordance with procedures approved by the Management Committee.

4.12 In accordance with human rights legislation of Canada and the Province, there shall be no discrimination by reason of race, sex, age, marital status, national origin, color, religion, or political affiliation in the employment of persons.

4.13 Recruitment of labor shall be conducted through the offices of the Canada Employment and Immigration Commission unless the Management Committee considers that it is not practicable.

4.14 Rates of pay for all areas of employment shall take into account differences in work classification, provincial labor codes and standards, provincial policy and guidelines on employment opportunity, and shall be subject to the minimum wage specified in provincial legislation.

4.15 Canadian material, machinery and equipment, contractors, consultants and other professional services shall be used in respect of all work under this Agreement to the extent to which it is procurable and consistent with economy and efficiency as determined by the Management Committee.

4.16 Reports, documents, plans, maps and other material resulting from cost-shared programs, sub-programs, activities and projects under this Agreement shall become the property of both parties.

4.17 Except as provided in Section 4.16, contributions by Canada under this Agreement to any project do not vest in Canada any proprietary interest in the physical assets constructed or acquired.

4.18 Where one party hereto is responsible for the implementation of a program, sub-program, activity or project under this Agreement, it shall indemnify and save harmless the other party, its officers, servants and agents against all claims and demands of third parties in any way arising out of the implementation of such programs, sub-programs, activities and projects, except to the extent to which such claims or demands relate to an act of negligence of any officer, employee, or agent of the other party.

SECTION 5: FINANCIAL PROVISIONS

5.1 The implementation of this Agreement is subject to the Parliament of Canada and the Legislative Assembly of the Province of British Columbia having provided funds for such purpose for the fiscal year in which such funding is required.

5.2 The eligible costs under the terms and conditions of this Agreement shall be shared by Canada and the Province in proportion to the contributions specified in subsection 5.3.

5.3 The maximum contribution by Canada under subsection 5.1 shall not exceed 50% or $150 million and the maximum contribution of the Province under subsection 5.1 shall not exceed 50% or $150 million.

5.4 The eligible costs of projects shall include all direct costs which, in the opinion of the Management Committee, have been reasonably and properly incurred and paid for the implementation and audit of these projects.

5.5 Eligible costs do not include the costs relating to the acquisition of federal and provincial Crown land.

5.6 Eligible costs do not include work for which there is a compensatory offset against payments or charges due Canada or the Province.

5.7 If, at any stage in the implementation of a program, it appears that the costs will exceed approved funding, the implementing party shall promptly notify the Management Committee and state the reasons for the overrun. The Management Committee shall consider the circumstances which have contributed to the cost escalation and shall prepare and present to Ministers a report and recommendations of the action proposed to be taken.

5.8 Notwithstanding subsection 10.1, the Management Committee may make financial adjustments in and between cost-shared sub-programs and activities; financial adjustments to federally-funded and provincially-funded sub-programs, activities and projects, remain the responsibility of the respective party. Any adjustments shall not alter the program totals as specified in Schedule "B" of this Agreement.

5.9 The Parties shall maintain adequate records of all transac-

tions made pursuant to this Agreement, supported by proper documents and vouchers.

5.10 The Parties shall make such records, documents, and vouchers available to the Ministers for audit of cost-shared projects, activities, sub-programs and programs upon request, and furnish any and all information in relation thereto.

5.11 Any discrepancy between amounts paid by either party and amounts actually payable by it, as disclosed by any audit, shall be promptly adjusted between the parties.

SECTION 6: PAYMENT PROCEDURES – COST-SHARED PROJECTS

6.1 Canada agrees to reimburse the Province promptly for eligible costs actually incurred and paid for cost-shared projects upon submission of a claim submitted in a form satisfactory to Canada.

6.2 Canada may make interim payments on a quarterly basis up to 100% of Canada's share of eligible costs, based on work completed, if certified by a senior official of the Ministry of Forests and submitted to a form satisfactory to Canada.

6.3 The Province shall account for each quarterly interim payment received, by submitting to Canada within the following quarter, a detailed statement of the actual expenditures incurred and paid, submitted in a form and verified in a manner satisfactory to Canada.

6.4 Canada shall not make any interim payments to the Province until all interim payments made in any previous fiscal year have been accounted for in a form satisfactory to Canada and bearing an audit certificate.

SECTION 7: MONITORING

7.1 Any member or representative of the Management Committee shall be permitted to inspect any project at all reasonable times for the purpose of evaluating, monitoring or assessing and obtaining any other information concerning the project which may be required by the Management Committee or the Ministers.

SECTION 8: PUBLIC INFORMATION

8.1 Canada and the Province agree to cooperate in the development and implementation of a program of public information respecting the implementation of activities and projects under this Agreement, and further agree to supply, erect and maintain on the direction of the Management Committee:

(a) during the course of implementation of cost-shared projects, a project sign or signs consistent with federal-provincial identity graphics guidelines, and in both official languages, specifying that the relevant project is a Forest Resource Development Project, financed by contributions from the Canadian Forestry Service of the Government of Canada, and the Ministry of Forests of the Province of British Columbia or such wording to the like effect as may be agreed upon by the Ministers; and

(b) where relevant, upon completion of a project, a permanent sign or plaque to the effect set forth in (a).

8.2 Any public announcement of cost-shared programs, subprograms, activities and projects covered by this Agreement, as well as any official opening ceremony for any cost-shared project under this Agreement, where such ceremony is indicated and appropriate, shall be arranged by the Ministers.

8.3 Any advertisement of or announcements of cost-shared contracts will be made jointly by Canada and the Province.

SECTION 9: ENVIRONMENTAL ASSESSMENT

9.1 The intent of both the Environmental Assessment and Review Process and the Provincial Environmental Impact Assessment Policy shall be followed for all projects under this Agreement.

SECTION 10: GENERAL

10.1 This Agreement may be amended as agreed from time to time by the Ministers personally in writing. It is expressly understood and agreed, however, that any amendment to subsections 5.2 and 5.3 shall require the prior approval of the Governor in Council and the Lieutenant Governor in Council.

10.2 No member of the House of Commons of Canada or the Legislative Assembly of the Province of British Columbia shall be admitted to any share or part of any contract, or commission made under this Agreement or to any benefit to arise therefrom.

10.3 Canada and the Province may renew this Agreement for a further five years.

SECTION 11: EVALUATION

11.1 During the term of this Agreement, and in no case later than September 30, 1989, Canada and the Province shall jointly effect an assessment of the programs listed in Schedule "A" with regard to the stated objectives of **A Forest Sector Strategy for Canada**, the provincial forest management planning guidelines and this Agreement. The terms of reference of this assessment shall be determined by the Management Committee and shall include the preparation of recommendations for cooperation between Canada and the Province in forest resource development after the expiry of this Agree-

ment. Upon completion, this assessment shall be submitted to the Ministers and may be published under their joint authority.

11.2 Within one year of the coming into force of this Agreement, a review of baseline data shall be conducted by the Management Committee upon which an evaluation of the impact of this Agreement can be based.

11.3 To assist in the preparation of reports pursuant to this Agreement, Canada and the Province shall each provide to the other, within six months of the end of each fiscal year, a report respecting federal activities and provincial activities under this Agreement.

IN WITNESS THEREOF this Agreement has been executed on behalf of Canada by the Minister of Agriculture and on behalf of the Province by the Minister of Forests and the Minister of Industry and Small Business Development.

IN THE PRESENCE OF

GOVERNMENT OF CANADA

Witness

Minister of State (Forestry)

GOVERNMENT OF THE PROVINCE OF BRITISH COLUMBIA

Witness

Minister of Forests

Witness

Minister of Industry and Small Business Development

CANADA-BRITISH COLUMBIA FOREST RESOURCE DEVELOPMENT AGREEMENT 1985-90

SCHEDULE A

1. INTRODUCTION

Long-term market trends for the forest industry in British Columbia are predicted to be strong with major increases in demand. Resource constraints are evident and could jeopardize the long-term stability of the forest industry.

The industry is based on the harvest of a standing crop of old-growth timber. The younger forests which replace these old-growth stands may, unless intensively managed, contain such less volume when they in turn are ready for harvest. The industry is faced with a long-term reduction in the quality and quantity of timber available for harvest. Further increases in forest management and renewal will help to alleviate this shortfall.

Serious unemployment problems are evident in many forest-dependent communities in B.C. As of January 1985, the unemployment rate in all forest industries was 18% and in logging and forest management nearly 23%. These rates persist, especially on the coast. Recent projections by the Canada Employment and Immigration Commission (CEIC) indicate a continuing problem throughout this decade.

This Agreement enables the Governments of Canada and British Columbia jointly and individually to undertake measures to renew and improve the forest resource of the province and thus maintain the annual rate of harvest of this renewable resource at levels above those supported by current management programs. This Agreement will create employment in areas of chronic unemployment, and in the longer term, improve the potential for expanded employment.

Coincident with this Agreement is the commitment of the Government of British Columbia to maintain its basic silvicultural program at levels sufficient over the life of this Agreement so that there is no net increase in "backlog" non-satisfactorily restocked forest lands.

2. PRESENT CIRCUMSTANCES

Resources and harvest

British Columbia contains the most productive forests in Canada. Approximately 55% of the province is forested (566 000 km^2). Most of this is classified as productive forest land (458 000 km^2) and of this area more than half is mature timber (230 000 km^2).

The British Columbia Ministry of Forests has established an Annual Allowable Cut (AAC) of 70 million m^3. During the decade ending in 1981, the annual harvest averaged 66 million m^3. Harvests were approximately 75 million m^3 in the period 1978 to 1980. In the severely depressed economy of 1982, only 56 million m^3 of timber were harvested in British Columbia.

Importance of forest industry

The forest industry is the most important industrial sector of British Columbia and in the latter part of the 1970's employed directly almost 100 000 people annually. The industry has contributed to British Columbia being in the forefront of economic progress in Canada during the last twenty-five years. The contributions of forestry to employment, exports, provincial revenues and economic growth and development of the province are unparalleled and there are many communities throughout the province which are dependent on the forest resource as their major or only economic base.

Importance of exports

Over 70% of British Columbia's manufactured forest products are normally exported, representing a significant contribution to Canada's export trade. In 1983, the total value of British Columbia's forest product exports was $5.5 billion. This represents over 50% of British Columbia's total export revenues. The most important export products are: softwood lumber (47% of forest exports), bleached Kraft pulp and newsprint. The dominant market is the United States which takes more than half of British Columbia's total forest products exports.

Forest industry employment

The forest industry employs approximately 8% of the total B.C. labor force when forest products markets are strong. Logging accounts for fully one-third of total provincial employment in primary industries. Employment in wood-based industries accounts for 41% of

total provincial employment in manufacturing. Forestry indirectly supports an estimated additional 15% of the provincial labor force in service industries.

Government revenues

Over the period 1978 through 1982, the B.C. forest industry and its employees annually paid approximately $650 million in taxes, including personal income taxes and other charges, to the provincial government. This accounted for approximately 11% of gross provincial revenues over this period. A further $440 million, including personal income taxes, is estimated to have been paid annually to the federal government by the B.C. forest industry and its employees.

3. FUTURE PROSPECTS

The demand for forest products on a world basis has been predicted to increase in the future.

The FAO suggests a 40% increase in total demand for all timber products over the period 1980 to the year 2000. Major growth is predicted in paper products, followed by wood panel products. Although lumber demand is expected to grow at a slower rate, world consumption projections imply major increases.

4. RESOURCE DEPLETION

In the developed portions of the province, the Annual Allowable Cut (AAC) has been fully committed. Some expansion in pulp production may be possible but little opportunity exists for the expansion of sawmilling. In spite of the continuing commitment by the B.C. Ministry of Forests to silviculture activities, long-term reductions in the quality and quantity of timber available for harvest at economic costs could produce an era of little or no industry growth and a decline in timber yields.

Many stands of mature timber cannot be harvested profitably with foreseeable technology and market conditions. Some stands are of log quality and meagre volume or they are in isolated parcels that cannot be economically exploited. Other stands are sensitive due to elevation, steepness of slope or other non-timber values and should not be harvested even where economically feasible.

Withdrawal of forest land for other uses has reduced the land-base

available for forest production; frequently on the most productive forest sites such as valley bottoms. Future timber harvests will be drawn from a smaller and less productive land-base.

Present harvest levels reflect the cutting of old-growth stands. The younger forests replacing the original forests may contain such less volume of merchantable timber when ready for harvest.

Resource shortfalls were examined in the B.C. Ministry of Forests' first **Forest and Range Resource Analysis** (1980). The overall timber supply could fall to as little as two-thirds of the present harvest level when the merchantable old-growth stock is exhausted unless silviculture activities are improved and enhanced. The second **Forest Range Resource Analysis** (1984), though not in the same detail as the 1980 version, reinforced this conclusion. In some forest regions timber supplies will remain plentiful for some considerable time. In other areas the falldown in supply is imminent and could occur as early as 1990 and will occur within one rotation period (see Table 1).

Table 1

Provincial Wood-supply by Region

Region	Years Until Falldown Begins
Bulkley-Northwest	5 to 60
Nelson	5 to 70
Prince George	5 to 100
Kamloops	10 to 40
Vancouver	10 to 60
Prince Rupert	10 to 80
Cariboo	10 to 100
Peace River	20 to 100

Source: **Forest and Range Resource Analysis** (1980)

Despite the silvicultural activities of the B.C. Ministry of Forests and private forest companies, there is unsatisfactory regeneration in many regions disturbed by harvesting, fire, insects and disease.

The Ministry of Forests has established minimum stocking standards taking into account the biological, geological and climatic conditions for regions. Areas which do not meet these standards are termed Non-Satisfactorily Restocked (NSR). Of particular concern are areas which do not meet minimum stocking standards within a reasonable time after disturbance; three years on the Coast and five years in the Interior. These areas of backlog NSR in British Columbia exceed one million hectares with 59% of them classified good and medium growing sites (see Table 2).

Table 2

Hectares of Non-Satisfactorily Restocked
Crown Forest Land (June 1982)

REGION	GOOD	MEDIUM	SUBTOTAL	%
Cariboo	13 510	34 420	47 930	
Kamloops	7 870	31 720	39 590	
Nelson	12 465	91 545	104 010	
Prince George	30 835	367 915	398 750	
Prince Rupert	5 155	27 740	32 855	
Vancouver	5 317	16 100	21 417	
TOTAL				
Good & medium site	75 112	569 440	644 552	59
Poor site			407 514	37
Low site			43 154	4
			1 095 220	100

Notes: Estimated base data adjusted to reflect reclassification of some backlog NSR and non-commercial brush areas as either satisfactorily restocked or as non-productive. Also adjusted to reflect expected natural regeneration on current NSR areas.

The area represents 2% of British Columbia's forest lands but a higher proportion of the most productive forest lands of the province. Conservatively, the rehabilitation of all good and medium growing sites would add 1.75 million m3 annually to the long-run sustainable yield of timber. Additional increases can be expected if genetically improved stock are planted in some areas, or if follow-up silvicultural treatments are undertaken.

The intensification of silviculture on existing young stands on provincial Crown Lands will also delay resource depletion. Spacing, fertilization and other stand tending practices will increase the potential yields of second-growth stands, bring them to harvestable size earlier, and thus maintain or increase the AAC.

During the five years of the 1979-84 Canada-British Columbia Intensive Forest Management Subsidiary Agreement, 48 000 ha of juvenile stands were spaced and 31 400 ha were fertilized, mainly on the Coast. The 1985-90 program of the B.C. Ministry of Forests identified 20 000 ha/year as requiring spacing, 24 000 ha/year requiring fertilization and 3 500 ha/year requiring conifer release.

5. FORESTRY SECTOR EMPLOYMENT

The well-being of British Columbia's 126 forest-dependent communities is highly vulnerable to trends and business cycles in forest product markets as well as timber supply problems. During the 1982 recession, B.C. unemployment reached 15%, but forest industry unemployment was estimated at 35% during the last quarter of 1982. The latest labor force survey by the International Woodworkers of America (May 1984) reveals that unemployment in the industry is again approaching 30%.

A CEIC study (October 1983) projects a bleak forestry employment prospect over the next decade. An optimistic scenario suggests that previous peak employment levels will be barely surpassed by 1990. Alternative scenarios suggest a loss of 10 000 to 20 000 jobs over the decade or that forest industry employment in 1990 will barely exceed the depressed levels of 1982.

6. SUMMARY AND PROSPECTS

Timber allocations and peak harvests are pressing against the current annual allowable cut in the province, and expansion of future harvests is unlikely. Considerable technological advance is taking place within the industry with the introduction of automatic lumber sorters, computer-controlled and high-speed and small-log processing technology. Such advances will have a significant impact on the level of employment per unit of timber harvested.

Over the term of this Agreement it is estimated that these forest renewal and management programs will add about 600 000 m^3 annually to the long run sustainable yield and maintain approxi-

mately 500 permanent full time jobs while generating short term employment for at least 15 000 persons.

While short-term employment from undertaking forest management and forest renewal is extremely significant, the biggest gain from these programs comes from maintaining and enhancing the resource base for a strong and competitive export-oriented industry.

Renewal of backlog NSR and increased intensive silviculture will have significant impact on chronic unemployment and the forest-dependent communities in the short and long run as forest renewal and management is labor-intensive. More lasting employment impacts will arise from larger harvests made possible by increased forest renewal and management.

The B.C. Ministry of Forests will arrange for a large and expanding basic silviculture program. During 1983/84, 74 309 ha of recently denuded land were prepared for either planting or for natural restocking, and nearly 95 000 ha were planted. By 1989/90, the Ministry has plans to expand these activities from current levels to 130 000 ha and 124 000 ha respectively.

The 1979-84 five-year Canada-British Columbia Intensive Forest Management Subsidiary Agreement and its one-year extension, has cost-shared $61 million of intensive forest management programs and backlog planting, (approximately 43% of total funding for juvenile spacing and 49% for backlog reforestation). This new Agreement is aimed at expanding the backlog regeneration component of the previous agreement as well as maintaining employment through intensive forest management programs on the Coast where unemployment remains extremely high.

7. PROGRAMS

In order to respond to the opportunities and constraints that the situation in the forest sector presents, this Agreement has been jointly developed by the Government of Canada, represented by the Canadian Forestry Service and the Government of British Columbia, represented by the Ministry of Forests. To achieve the overall objectives of securing and expanding the supply of wood, which will allow for the retention and eventual increase of jobs in the forest sector, the following programs will be implemented by both a cost-shared and unilaterally-funded basis.

1) Backlog Reforestation
2) Intensive Forest Management
3) Implementation, Communication and Evaluation

Several sub-programs associated with provincial Crown forest lands will be delivered directly by the Ministry of Forests. These activities focus on growth and yield-performance monitoring, seed supply and processing needs, technology development and transfer for seedling supply, applied research support and pest-control activities.

Several sub-programs under this Agreement will be delivered directly by the Canadian Forestry Service. These activities focus on management of federal forests and privately-owned land, improved forestry education, technology development and transfer, and identification of economic development opportunities.

Of the 600 000 ha of federal forest lands in British Columbia, up to 50 000 ha are in need of improved forest management and protection from fire, insects and disease. During this Agreement, forest management will improve up to 8 400 ha. These forestry activities will integrate land-use planning of federal lands and provide employment opportunities for Canada's native people.

Private forest lands not under Tree Farm License or Taxation Tree Farm tenure which would benefit from enhanced levels of management are estimated at 500 000 ha. These lands are some of the most productive growing sites in the province. Owners are often unaware of appropriate forest management strategies and require forest extension services.

The federal government will, through these unilaterally-funded sub-programs provide for survey and prescriptions on federal Crown land; seedlings, and extension forestry on private land, site preparation and planting on both federal Crown land and on private land. Private land owners would have to guarantee that the land remain in forest production for at least one rotation.

PROGRAM 1 – BACKLOG REFORESTATION

A number of sub-programs will be undertaken jointly by Canada and British Columbia to address backlog NSR renewal. These are Surveys and Prescriptions, Seed Procurement and Seedling Production, Site Preparation, Planting, Implementation and, Extension, Demonstration and R&D.

The Agreement will make major inroads into the renewal of backlog NSR in British Columbia. During the term of this Agreement, good and medium site backlog NSR lands will be planted. Sub-programs, activities and projects can focus on those areas with high unemployment and significant forestry requirements.

1.1 SURVEYS AND PRESCRIPTIONS

The backlog reforestation program will survey up to 250 000 ha of forest land. The B.C. Ministry of Forests' survey and prescription standards will be used and the surveys will be conducted by professional foresters and technicians. Survey and prescriptions will be incorporated into a computerised data system to facilitate program management.

1.2 SEED AND SEEDLINGS

The planting of 150 000 ha of forest land will require the acquisition of an estimated 2 000 kg of seed from natural stands of various tree species. This seed will be tested, stored, registered and prepared for planting in nurseries.

The reforestation program will require up to 180 million seedlings over the five year period. To maximize successful regeneration, much of this added nursery production will be containerised stock with size defined by the site prescriptions.

The Ministry's present seed processing and storage facilities are inadequate to support the reforestation program under this Agreement. More modern seed processing equipment combined with improved testing facilities will improve seed quality. There is also an urgent need to increase seed storage capacity. Improvements are required to ensure the integrity of the internal environment of the seed storage units and to make them secure from vandalism and natural elements (e.g., floods, fire).

Construction of a new seed facility at the Ministry's Surrey nursery has been recommended. The province will unilaterally fund support for seed processing and supply facilities. In addition, the Province will improve physical facilities for the handling of seedlings by:

i. **Conversion to container stock**

All future expansion in the provincial nursery program is expected to be for container stock rather than bare-root stock. Minimal nursery capital development funding can provide significant cost savings in the production and planting of container spruce seedlings compared with bare-root stock. Survival of planted seedlings is also improved significantly.

In order to secure these gains, nursery capital must be made available for container production.

ii. **Provision for adequate cold storage facilities**

All readily available cold storage facilities are now being utilized and the Ministry of Forests has entered into a number of long-term leases for seedling storage. Increases in storage are required in the Prince George and Prince Rupert forest regions. It is expected that the bulk of any increase in capacity will be achieved through long-term leases.

1.3 SITE PREPARATION

Site rehabilitation and access road upgrading will be essential on virtually all backlog lands. Various site rehabilitation methods include mechanical, chemical, prescribed fire and manual techniques. Site specific prescriptions will be made and consideration given to local unemployment conditions. Most site preparation assignments will be performed on 150 000 ha by private contractors on a competitive bid basis.

1.4 PLANTING

The planting of the 150 000 ha will normally be performed by silvicultural contractors on a competitive bid basis. The Ministry of Forests will provide staff or contract for field personnel to administer these projects; this will include quality inspections. Post-planting surveys will be conducted by the Ministry of Forests or by contract to determine tree survival and performance. The Federal government will unilaterally fund the planting of NSR backlog of small private ownership lands and on federal Crown lands.

1.5 IMPLEMENTATION

This sub-program covers the costs of implementation under cost-shared programming and on federal lands. The preparation of progress reports, assessment and environmental statements will be required.

1.6 FORESTRY EXTENSION, DEMONSTRATION AND R&D

The expanded backlog reforestation effort will increase the need to refine and improve the efficiency of forestry practices essential to the success of this program.

The Forestry Extension, Demonstration and R & D sub-program will be cost-shared and the Province and Canada will unilaterally fund some initiatives that reflect an area of expertise or responsibility.

The cost-shared initiatives will include the improvement of nursery, seedling storage, site preparation and reforestation practices and prescriptions and the prompt demonstration and transfer of information, techniques and standards to the practicing field forester and client organizations.

The Ministry of Forests' Research Branch facilitates the prompt communication of R & D results to practicing field foresters. The Province will directly fund a pilot-scale growth & yield initiative to assess backlog plantation performance of activities and projects under the cost-shared program. In addition direct provincial funding will be provided for the upgrading of provincial R & D facilities, at Red Rock and Saanich, essential to the backlog program.

The federal government, through the Canadian Forestry Service, will develop tools and techniques for forestry on private woodlots and provide extension services to those small owners who are often unaware of appropriate forest management strategies. In addition, federal support for extension of technology and technical liaison with other federal and provincial agencies, industry, associations and the academic and research communities will provide for:

- workshops, seminars and demonstrations,
- technology assessment,
- pilot projects,
- professional development, and
- silviculture job training.

PROGRAM 2 – INTENSIVE FOREST MANAGEMENT

This program is designed to increase the growth of juvenile stands and intermediate stands, through intensive silviculture. By 1989/90, approximately 180 000 ha of Crown provincial lands will be treated with intensive silvicultural practices such as: brushing and weeding; and protection; conifer release; juvenile spacing and fertilization. Projects for implementation, extension, R & D and demonstration are also planned. Intensive forest management does not usually require the use of heavy equipment and is very labour intensive.

2.1 BRUSHING AND WEEDING AND PEST CONTROL

Where undesirable competing vegetation threatens planted stock, brushing and weeding will ensure that seedlings reach a free-growing stage. As with site preparation, an element of choice exists. Chemical or manual methods can be used. Most areas regenerated will require stand tending. Up to 26 700 ha will be treated under this Agreement.

Bark beetles are killing a substantial part of the mature spruce and pine trees in the B.C. interior. These species account for a substantial part of the Interior's annual timber harvest.

Accelerated control of bark beetle infestations will reduce the inherent fire hazard risk to plantations and young stands established or treated under this Agreement.

The main method of reducing timber losses from mountain pine beetle and spruce beetle is to harvest infested trees before pest populations build up and spread to adjacent areas. Access must be developed to many areas requiring immediate harvest.

An effective mountain pine beetle pheromone has been synthesized and tested. Its use is considered to be operational and will make other management techniques more efficient. Additional funding is required to control infestations in beetle-prone areas and to maintain the intensive surveys on which a control program must depend. The Province will unilaterally fund this activity.

2.2 CONIFER RELEASE

Many established juvenile coniferous stands suffer from deciduous competition which retards growth. It will be necessary to cut back or chemically treat the deciduous growth. This treatment normally occurs when the stand is between 15 and 30 years old. Up to 10 000 ha will be treated under this Agreement.

2.3 JUVENILE SPACING

Dense plantations between 10 and 20 years old can be spaced to remove inferior trees and leave the biggest, healthiest and best-formed trees with more room to grow.

Trees are spaced at about 3.5 metres intervals according to site-specific prescriptions. Fallen trees are left on the ground to decay, returning nutrients to the soil. Many stands in both coast and interior regions of the province have reached the most appropriate age for this treatment. Close to 66 700 ha will be treated under this Agreement.

2.4 FERTILIZATION

The effects of fertilization last about five or ten years and the treatment may be repeated several times over the life of the stand.

Not all stands need to be fertilized, and not all species will respond. Fertilization has brought the highest performance gains in coastal Douglas-fir. Under this Agreement 80 000 ha will be fertilized.

2.5 IMPLEMENTATION

In addition to the cost-shared programs on provincial Crown land, the federal government will unilaterally fund intensive forest management projects on federal Crown land which will include Indian Reserve lands as well as land owned by the Department of National Defence, and other federal departments.

The federal government will be responsible for the implementation and management of federally-funded projects which will carry out intensive forest management on federal Crown land and on private woodlots.

2.6 FORESTRY EXTENSION, DEMONSTRATION AND R & D

Success of this program will be optimized through research and development and the transfer of research results to forestry practitioners. Canada and the Province will unilaterally fund projects that reflect an area of expertise or responsibility.

The Ministry of Forests' Research Branch facilitates the prompt communication of R & D results to practicing field foresters. The province will directly fund pilot growth and yield monitoring and initiatives designed to provide an expanded data base that can be used to assess performance gain from operational forest management activities and projects carried out under the cost-shared sub-programs.

Support will be provided by the federal government to non-profit organizations and universities for the provision of research and development, demonstration, and forestry education directly related to the objectives of the Agreement. Activities could include development of demonstration areas or the improvement of facilities at universities for related research.

This sub-program will fund investigations into improved utilization, marketing of traditional or new products and the feasibility of investments for emerging opportunities. The forest industry must be able to utilize material considered suitable due to size or species.

PROGRAM 3 – IMPLEMENTATION, COMMUNICATIONS AND EVALUATION

This program will cover the activities required to ensure that the terms and conditions of the Agreement are being adhered to and furthermore, that proper and correct forestry is being practiced, and that the results of this work are communicated to the general public. The program is divided into two sub-programs:

- implementation, monitoring and evaluation; and
- communication

3.1 IMPLEMENTATION, MONITORING AND EVALUATION

A wealth of experience and ability exists in the private forest sector in British Columbia. Canada and British Columbia will use, in addition to staff personnel, private sector professionals on a contract basis for the development, supervision, monitoring and evaluation of projects.

Implementation will involve contracts with small firms and private foresters in this forest renewal and management initiative. The Province will be responsible for implementing the cost-shared subprograms and activities. Canada and the Province will jointly carry out the primary evaluation of the total Agreement.

3.2 COMMUNICATIONS

A communications plan has been prepared to publicize the objectives, progress and future direction of initiatives under this Agreement through:

- development and production of general forestry information brochures and slide/tape shows,
- construction and erection of project signs,
- contracting with professional public relations services, and
- renting or leasing facilities and equipment for presentations.

This sub-program will be cost-shared.

Note: Schedule "B" attached to this document summarizes the costs to each government by program over the term of the Agreement.

SCHEDULE B

1985-90 CANADA-BRITISH COLUMBIA FOREST RESOURCE DEVELOPMENT AGREEMENT

Programs and sub-programs	Federal	Provincial	Cost-Shared		Sub-Program Totals	Program Totals
			Federal	Provincial		
1. BACKLOG REFORESTATION						
1.1 Surveys and Prescriptions	0.5		1.5	1.5	3.5	
1.2 Seeds and Seedlings	2.0	21.0	21.3	21.3	65.6	
1.3 Site Preparation	4.0	–	26.6	26.6	57.2	
1.4 Planting	3.0	–	20.6	20.6	44.2	
1.5 Implementation	5.0	–	–	–	5.0	
1.6 Extension, Demonstration and R&D	4.0	6.0	7.0	7.0	24.0	
Program Totals	18.5	27.0	77.0	77.0		199.5
2. INTENSIVE FOREST MANAGEMENT						
2.1 Brushing, Weeding and Pest Control	2.0	1.0	4.0	4.0	11.0	
2.2 Conifer Release	1.0	–	2.0	2.0	5.0	
2.3 Juvenile Spacing	4.5	–	20.0	20.0	44.5	
2.4 Fertilization	0.5	–	10.0	10.0	20.5	
2.5 Implementation	2.0	–	–	–	2.0	
2.6 Extension, Demonstration and R&D	1.0	2.0	–	–	3.0	
Program Totals	11.0	3.0	36.0	36.0		86.0
3. IMPLEMENTATION, COMMUNICATIONS AND EVALUATION						
3.1 Implementation Contracts, Monitoring and Evaluation	0.5	–	6.0	6.0	12.5	
3.2 Communications	–	–	1.0	1.0	2.0	
Program Totals	0.5	–	7.0	7.0		14.5
TOTAL – By Type of Funding	30.0	30.0	120.0	120.0		
TOTAL – ALL Programs						300.0